

REMARKS:

The Office Action dated June 3, 2009, has been received and the preceding amendments and following remarks form a full and complete response thereto. Claims 1, 2, and 14 have been amended. Claim 7 has been canceled and claim 15 has been added. No new matter is added.

Response to Claim Objections

Claim 1 was objected to for misspelling “essentially”. Applicants submit that claim 1 has been amended to moot the typographical error.

Response to rejections under 35 U.S.C. § 103

Claims 1, 2, 7, 11, and 14 were rejected under 35 U.S.C. §103(a) as being obvious over Wachendorff-Neumann (U.S. 6,787,567). The Examiner asserts that Wachendorff-Neumann discloses fungicidally active compound combinations and that prothioconazole and trifloxystrobin are fungicides that can be used in the active combinations. With regard to the limitation “consisting essentially of”, the Examiner asserts that the specification does not properly define the scope of the claim to the specific materials “and to those that do not materially affect the basic and novel characteristics” of the claimed invention. Thus, the Examiner has construed the term “consisting essentially of” as equivalent to “comprising”.

Applicants submit that Wachendorff-Neumann only discloses that the combination of methoximinoacetamide derivatives of formula (I) and at least one of 58

listed fungicides may have synergistic effects. Further, Wachendorff-Neumann only provides evidence that the combination of the compound of formula Ib and copper oxychloride has a synergistic effect (see Example, col. 29). Thus, after reading Wachendorff-Neumann, it would not be obvious to one of ordinary skill that selecting the presently claimed fungicides, instead of a methoximinoacetamide derivative in combination with another fungicide, would produce a synergistic fungicidal mixture. Wachendorff-Neumann only mentions that prothioconazole of formula XXI or trifloxystrobin of formula XIII (among many other possible fungicides) may be combined with methoximinoacetamide derivatives of formula I (see col. 22, line 67 to col. 23, line 1, and col. 24 lines 1-2, and 25-26).

Applicants submit that the subject matter of claim 7 has been incorporated into claims 1-2 and claim 7 has been cancelled. Applicants submit that the limitation “wherein the weight ratio of prothioconazole of the formula I to the further fungicidal compound is from 1:20 to 20:1” further distinguishes the present claims over Wachendorff-Neumann. Wachendorff-Neumann states that “preferably from 0.2 to 20 parts by weight, of active compound of group (13),...are present per part by weight of active compound of formula (I)” (see col. 22 lines 52-53, and col. 24 lines 25-26). Thus, the only ratios and mixtures taught in Wachendorff-Neumann are mixtures consisting of 1 part by weight of a methoximinoacetamide derivative, i.e. “the compound of formula (I)”, to 0.2 to 20 parts by weight of a fungicide selected from groups 2-58. Thus, the ratios disclosed by Wachendorff-Neumann are ratios of methoximinoacetamide derivatives of formula I to another fungicide. Therefore, Applicants submit that there is no disclosure in Wachendorff-Neumann that renders obvious a mixture comprising

prothioconazole and a fungicide selected from the group consisting of formulae II to IV in a weight ratio of from 20:1 to 1:20. If the Examiner believes that there is such disclosure or suggestion in Wachendorff-Neumann, Applicants respectfully request that the Examiner provide support for his belief.

Even if support for such weight ratios could be found, Applicants refer to the clearly demonstrated synergistic effects compared with the individual additive effects of the ingredients. Indeed, there is an extraordinary increase in observed efficacy vs. the calculated efficacy when combining prothioconazole and each of trifloxystrobin, picoxystrobin, and pyraclostrobin (see Table 4). According to the MPEP (2141)

- (A) The claimed invention must be considered as a whole;
- (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
- (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and
- (D) Reasonable expectation of success is the standard with which obviousness is determined.

The claimed invention, viewed as a whole, does not relate to a synergistic combination of a compound of formula I of Wachendorff-Neumann and one or more fungicides. Secondly, the cited reference, considered as a whole, does not suggest the obviousness of finding a synergistic mixture of two fungicides that do not include the compound of a methoximinoacetamide derivative of formula I. Thirdly, the cited reference appears to have been viewed by the Examiner with impermissible hindsight vision afforded by the claimed invention because there is no way to predict the

synergistic combination of two compounds without performing biological experiments. Moreover, these tests were not suggested or performed for the combination of prothioconazole and the presently claimed further fungicides in the disclosure of Wachendorff-Neumann.

In the present application, a very high degree of synergistic efficacy is demonstrated (high efficacy % vs. very low expected efficacy %). The relative degree of synergy disclosed in Wachendorff-Neumann is much lower, i.e. 89% observed vs. 75% expected efficacy. Thus, at the time of the invention, it would not have been obvious to one of ordinary skill in the art that selecting any of the presently claimed fungicides and combining them would produce a synergistic mixture with very high efficacy. Furthermore, because the effectiveness of each of the individual ingredients of the presently claimed synergistic mixture is not very high, there is a lower expectation of obtaining a highly effective product when combining the presently claimed compounds (see Table 1 of the present application), whereas the compound of formula Ia of Wachendorff-Neumann already had a higher known efficacy (66%), the very high observed efficacy of the presently claimed synergistic mixture is even more unexpected and non-obvious.

Thus, Applicants submit that one of ordinary skill in the art reading Wachendorff-Neumann would not have found it obvious to combine prothioconazole and trifloxystrobin to produce a synergistic mixture. Applicants respectfully request that the rejection claims 1, 2, 11, and 14 be withdrawn.

Further, the Examiner states that Wachendorff teaches that synergistic compositions can be obtained using the instantly discussed compounds using a mathematical formula which accounts for the efficacy of one drug, the efficacy of the other and the efficacy of both when applied together. Applicants submit that the disclosure of a known mathematical formula for calculating efficacy of drugs and drug combinations does not render obvious every synergistic combination of any two known drugs. Applicants respectfully request that the Examiner provide support for his position that the claimed combination of specific ingredients would have been obvious based on Wachendorff-Neumann, which requires methoximinoacetamide derivatives.

With regard to the rejection of claim 14, which is directed to a mixture comprising prothioconazole and pyraclostrobin, Applicants respectfully request that the Examiner provide his reasoning for the rejection of this claim. Because there is no mention of pyraclostrobin in Wachendorff-Neumann, Applicants submit that claim 14 is not rendered obvious and respectfully request that the rejection be withdrawn.

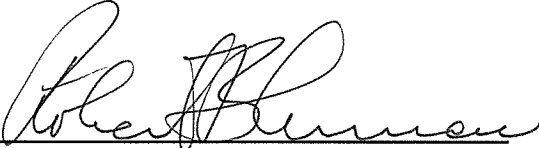
Conclusions

In view of the above amendments and remarks hereto, Applicants believe that all of the Examiner's rejections set forth in the January 8, 2009 Office Action have been fully overcome and that the present claims fully satisfy the patent statutes. Applicants, therefore, believe that the application is in condition for allowance.

The Director is authorized to charge any fees or overpayment to Deposit Account No. 02-2135.

The Examiner is invited to telephone the undersigned if it is deemed to expedite allowance of the application.

Respectfully submitted,

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